



HUMAN GENOME SCIENCES

A Montgomery College Case Study: growing a \$2.36 billion in revenue biotech workforce

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CASE STUDY OVERVIEW

PART 1:

Human Genome Sciences (HGS) Company Background

HGS' Biotech Workforce & Hiring Strategy

HGS & Montgomery College Partnership: HGS' perspective

- Local Level
- National Level

PART 2:

Montgomery College perspective

HGS COMPANY BACKGROUND

Human Genome Sciences exists to place new therapies into the hands of those battling serious disease

Founded in 1992

Over 1000 employees

Publicly traded on NASDAQ

Mid Stage & Late stage biopharmaceutical company

Cash and investments at Sept 30, 2010: \$1.0 billion

HGS MID-STAGE & LATE-STAGE DRUG PIPELINE

	Name	Indication	Phase 1	Phase 2	Phase 3	BLA Filed
LEAD	BENLYSTA®	<i>Systemic Lupus</i>	█	█	█	█
	Raxibacumab	<i>Inhalation Anthrax</i>	█	█	█	█
EMERGING	Mapatumumab	<i>Cancer</i>	█	█		
	HGS-1029	<i>Cancer</i>	█			
	BENLYSTA	<i>Vasculitis</i>	█			
	BENLYSTA	<i>Post-Renal Transplant³</i>	█			
	BENLYSTA	<i>Additional Autoimmune</i>	█			
	Anti-CCR5 mAb	<i>Ulcerative Colitis</i>	█			
GSK	Darapladib	<i>Cardiovascular Disease</i>	█	█	█	
	Albiglutide	<i>Type 2 Diabetes</i>	█	█	█	

HGS BIOTECH WORKFORCE



HGS BIOTECH WORKFORCE

Workforce Skill set:

- Technical/ complex equipment operations
- High level of automation/ computer interaction
- GMP Procedures & Documentation (SOPs, Batch Records)
- Regulatory Agency Oversight
- Avoid Errors: Very High Batch Costs

Targeted Workforce: Manufacturing

- Approximately 20% of the company work in Manufacturing
- Close to 100 people hired in past 15 months
- Spans HGS' 4 GMP Manufacturing Facilities



HGS HIRING STRATEGY

Education Level	Details	HGS Preference?
4 Year Degree	University	Yes
2 Year Associates Degree	Community College (Montgomery College)	Yes
High School Education	No biotech knowledge or job experience	No

Important ! Need alignment between community college programs and local industry hiring strategy. Market Driven workforce.



HGS HIRING STRATEGY: SHIFT TOWARDS COMMUNITY COLLEGES

Category	HGS 2005	HGS Now
Target Candidate	<ul style="list-style-type: none"> Targeted: 4 yr degrees & 2-4 yr experience 	<ul style="list-style-type: none"> Preferred: community college (Blend)
Education Preference	<ul style="list-style-type: none"> 4 Year Degree: "Theoretical Knowledge" 	<ul style="list-style-type: none"> Community College: More hands-on practical training
Hiring Approach	<ul style="list-style-type: none"> Opportunistic: From other Biotech Companies..... not sustainable Longer time to fill positions 	<ul style="list-style-type: none"> HGS provides additional new hire training Bigger pipeline: quicker to fill positions
Retention	<ul style="list-style-type: none"> After 2 yrs bored. 	<ul style="list-style-type: none"> Better Retention: The job is above what's expected 

TRANSITION OF BIOTECH NEW HIRES



VIDEO: COMMUNITY COLLEGE SUCCESS STORIES

Professor Collins Jones & Ritchie Vehemente



HGS & MONTGOMERY COLLEGE PARTNERSHIP: 'LOCAL' LEVEL

1. Biotech Program Support

- HGS participates on Biotech Program Advisory Board
- Equipment donations
- Curriculum review / Curriculum sharing
- Student Tours @ HGS
- Teaching Assistance: 1 HGS adjunct professor & Guest lectures

2. Recruitment Assistance into the Community College

- Present/ Participate at Teachers Workshops
- HGS Scholarships to Montgomery College per successful hire
- HGS take on Part Time contractors/ Internships
- HGS Open House for Hiring Ramp ups

HGS & MONTGOMERY COLLEGE PARTNERSHIP: 'NATIONAL' LEVEL

Driving a nationwide approach to improving the Biotech workforce

Since 2006, both are partners in NBC2 Biotech Industry & Colleges
Nationwide Collaboration (NSF funded)

NBC2 Board: 20 Industry & 14 Education Partners

- HGS & Montgomery College plus: Lonza, GSK, Pfizer, Biogen,...

Developed Skill Standards and a Global Biotech Curriculum

- Textbook
- Lab Manuals & Instructor Guides
- Computer Simulation Training



“At Human Genome Sciences our people are our most important resource and we never take them for granted”

